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Nota di contenuto	1 Introduction and Motivation -- 2 Parametrized Differential Equations -- 3 Reduced Basis Methods -- 4 Certified Error Control -- 5 The Empirical Interpolation Method -- 6 Beyond the Basics -- 7 Appendix A Mathematical Preliminaries.
Sommario/riassunto	This book provides a thorough introduction to the mathematical and algorithmic aspects of certified reduced basis methods for parametrized partial differential equations. Central aspects ranging from model construction, error estimation and computational efficiency to empirical interpolation methods are discussed in detail for coercive problems. More advanced aspects associated with time-dependent problems, non-compliant and non-coercive problems and applications

with geometric variation are also discussed as examples.
